



A service of the National Library of Medicine  
and the National Institutes of Health

My NCBI  
[Sign In] [Register]

All Databases

PubMed

Nucleotide

Protein

Genome

Structure

OMIM

PMC

Journals

Search PubMed

for dead and glutamicum

Preview

Go

Limits

Preview/Index

History

Clipboard

Details

About Entrez

Text Version

Entrez PubMed

Overview

Help | FAQ

Tutorials

New/Noteworthy

E-Utilities

- Search History will be lost after eight hours of inactivity.
- Search numbers may not be continuous; all searches are represented.
- To save search indefinitely, click query # and select Save in My NCBI.
- To combine searches use #search, e.g., #2 AND #3 or click query # for more options.

Search	Most Recent Queries	Time	Result
<u>#10</u>	Search dead and glutamicum	10:31:18	<u>0</u>
<u>#9</u>	Search "dead gene"	10:30:50	<u>6</u>
<u>#8</u>	Search "dead gene" AND glutamicum	10:30:40	<u>0</u>
<u>#6</u>	Search #4 AND glutamicum	10:30:29	<u>3</u>
<u>#5</u>	Search #4 AND (farwick OR huthmacher OR brehme OR pfefferle OR degussa)	10:29:16	<u>0</u>
<u>#4</u>	Search "DNA Helicases"[Mesh]	10:28:37	<u>6093</u>

Clear History

Related

Resources

Order Documents

NLM Mobile

NLM Catalog

NLM Gateway

TOXNET

Consumer Health

Clinical Alerts

ClinicalTrials.gov

PubMed Central

[Write to the Help Desk](#)

[NCBI](#) | [NLM](#) | [NIH](#)  
Department of Health & Human Services  
[Privacy Statement](#) | [Freedom of Information Act](#) | [Disclaimer](#)

Web Images Video News Maps Gmail more ▾

Sign in

Google

top10/pxk99edead OR "DSM 14464"

Search

Advanced Search  
Preferences

Web

Results 1 - 3 of 3 for top10/pxk99edead OR "DSM 14464" (0.13 seconds)

Did you mean: [top 10/pxk99edead OR "DSM 14464"](#)

NUCLEOTIDE SEQUENCES WHICH CODE FOR THE DEAD GENE - PatentEP1320544

An Escherichia coli strain [Top10/pxK99Edead](#) deposited as [DSM 14464](#). .... [0106]  
Escherichia coli [Top10/pxK99Edead](#) as [DSM 14464](#). ...  
[www.freepatentsonline.com/EP1320544.html](#) - 70k - [Cached](#) - [Similar pages](#)

(WO/2002/026787) NUCLEOTIDE SEQUENCES WHICH CODE FOR THE DEAD GENE

Escherichia coli strain [Top10/pxK99Edead](#) as [DSM 14464](#) deposited at the Deutsche Sammlung für Mikroorganismen und Zellkulturen [German Collection of ...  
[www.wipo.int/pctdb/en/wo.jsp?IA=WO2002026787&DISPLAY=CLAIMS](#) - 21k - [Cached](#) - [Similar pages](#)

(WO/2002/026787) NUCLEOTIDE SEQUENCES WHICH CODE FOR THE DEAD GENE

**2 DSM 14464** 33790 Halle/Kunsebeck Date of the deposit or the transfer' : 2001-08-22 III. VIABILITY STATEMENT The viability of the microorganism identified ...  
[www.wipo.int/pctdb/en/wo.jsp?IA=WO2002026787&DISPLAY=DESC](#) - 108k - [Cached](#) - [Similar pages](#)

*In order to show you the most relevant results, we have omitted some entries very similar to the 3 already displayed. If you like, you can repeat the search with the omitted results included.*

Did you mean to search for: [top 10/pxk99edead OR "DSM 14464"](#)

Free! Get the Google Toolbar. [Download Now](#) - [About Toolbar](#)

Google 

Go          

[top10/pxk99edead OR "DSM 14464"](#) Search

[Search within results](#) | [Language Tools](#) | [Search Tips](#) | [Dissatisfied? Help us improve](#)

©2007 Google - [Google Home](#) - [Advertising Programs](#) - [Business Solutions](#) - [About Google](#)

Results 11 - 18 of 18 for (farwick OR huthmacher OR brehme OR pfefferle OR degussa) AND ("DNA helicase" OR "DNA/RNA helicase" OR "RNA helicase"). (0.12 seconds)

GOOGLE SCHOLAR  
Search terms

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1	top10/pxk99edead	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/10/30 10:43
L2	2	"DSM 14464"	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/10/30 10:43
L3	2	I1 or I2	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/10/30 10:43
L4	0	top/pxk99edead	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/10/30 10:43
S1	7	(farwick.in. OR huthmacher.in. OR brehme.in. OR pfefferle.in. OR degussa.as.) and dead and (coryneform OR corynebacterium OR glutamicum)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/10/30 10:00
S2	4	(farwick.in. OR huthmacher.in. OR brehme.in. OR pfefferle.in. OR degussa.as.) and ("DNA helicase" OR "RNA helicase" OR "DNA/RNA helicase") and (coryneform OR corynebacterium OR glutamicum)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/10/30 09:59
S3	0	S2 not S1	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/10/30 09:59
S4	4	(farwick.in. OR huthmacher.in. OR brehme.in. OR pfefferle.in. OR degussa.as.) and helicase and (coryneform OR corynebacterium OR glutamicum)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/10/30 09:59
S5	0	S4 not (S2 or S1)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/10/30 10:00
S6	52	((dead near2 gene) OR helicase) same (coryneform OR corynebacterium OR glutamicum)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/10/30 10:04

## EAST Search History

S7	2	(dead.clm. OR helicase.clm.) same (coryneform OR corynebacterium OR glutamicum)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	OFF	2007/10/30 10:26
----	---	---	---	----	-----	------------------

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
4 April 2002 (04.04.2002)

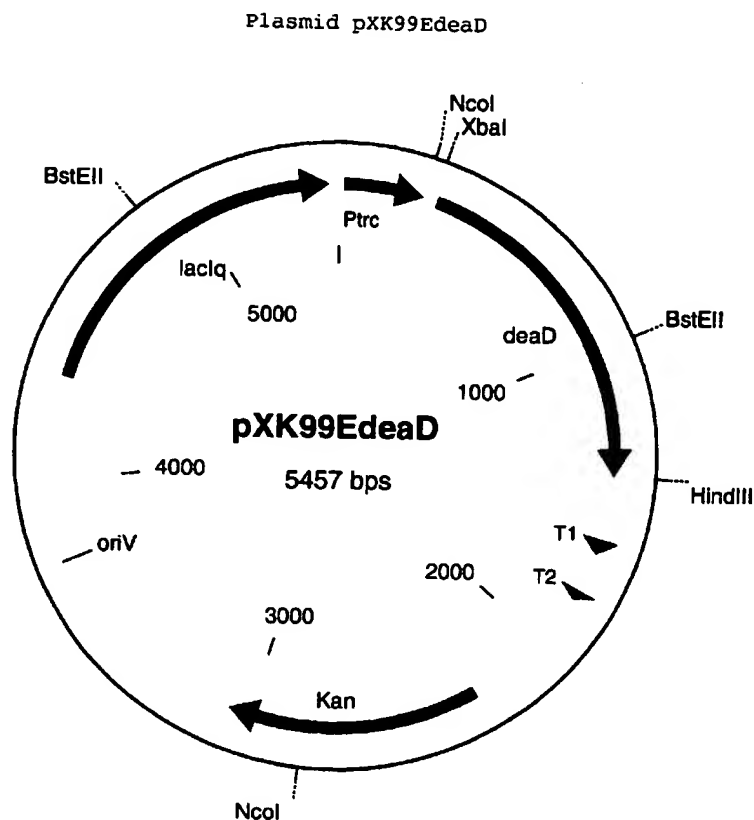
PCT

(10) International Publication Number  
**WO 02/26787 A1**

- (51) International Patent Classification<sup>7</sup>: **C07K 14/34**, (72) Inventors: **FARWICK, Mike**; Gustav-Adolf-Strasse 11, 33615 Bielefeld (DE). **HUTHMACHER, Klaus**; Lärchenweg 18, 63584 Gelnhausen (DE). **BREHME, Jennifer**; Kastanienstrasse 10, 33649 Bielefeld (DE). **PFEFFERLE, Walter**; Jahnstrasse 33, 33790 Halle (Westf.) (DE).
- (21) International Application Number: PCT/EP01/10772
- (22) International Filing Date:  
18 September 2001 (18.09.2001)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
100 47 865.4 27 September 2000 (27.09.2000) DE
- (71) Applicant: **DEGUSSA AG** [DE/DE]; Bennigsenplatz 1, 40474 Düsseldorf (DE).
- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.
- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE,

[Continued on next page]

(54) Title: NUCLEOTIDE SEQUENCES WHICH CODE FOR THE DEAD GENE



(57) Abstract: The invention relates to an isolated polynucleotide comprising a polynucleotide sequence chosen from the group consisting of a) polynucleotide which is identical to the extent of at least 70% to a polynucleotide which codes for a polypeptide which comprises the amino acid sequence of SEQ ID No. 2, b) polynucleotide which codes for a polypeptide which comprises an amino acid sequence which is identical to the extent of at least 70% to the amino acid sequence of SEQ ID No. 2, c) polynucleotide which is complementary to the polynucleotides of a) or b), and d) polynucleotide comprising at least 15 successive nucleotides of the polynucleotide sequence of a), b) or c), and a process for the fermentative preparation of L-amino acids using coryneform bacteria in which at least the *deaD* gene is present in attenuated form, and the use of polynucleotides which comprise the sequences according to the invention as hybridization probes.

WO 02/26787 A1

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 01/10772

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07K14/34 C12N9/00 C12N15/10 C12N15/63 C12P13/08  
C12Q1/68 //(C12P13/08,C12R1:15)

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07K C12N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, BIOSIS, EMBASE, SEQUENCE SEARCH

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE EMBL 'Online! Accession Number Z77137, 22 July 1996 (1996-07-22) XP002189109 the whole document	1-7,9, 17,20,21
X	DATABASE EMBL 'Online! Accession Number AE003878, 18 June 2000 (2000-06-18) XP002189110 the whole document	1-7,9, 17,20,21
X	DATABASE EMBL 'Online! Accession Number L08387, 24 December 1992 (1992-12-24) XP002189111 the whole document	1-7,9, 17,20,21
	--- -/--	

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## \* Special categories of cited documents:

\*A\* document defining the general state of the art which is not considered to be of particular relevance

\*E\* earlier document but published on or after the international filing date

\*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

\*O\* document referring to an oral disclosure, use, exhibition or other means

\*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*Z\* document member of the same patent family

Date of the actual completion of the international search

4 February 2002

Date of mailing of the international search report

01/03/2002

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Chavanne, F



## INTERNATIONAL SEARCH REPORT

Int. Patent Application No.

PCT/EP 01/10772

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	EP 1 108 790 A (KYOWA HAKKO KOGYO KK) 20 June 2001 (2001-06-20) table 1 SEQ ID No.1278	1-7, 17, 20, 21
P,X	EP 1 106 693 A (DEGUSSA) 13 June 2001 (2001-06-13) abstract page 1, line 3 - line 5 examples 1-5 claims 1-18	5, 6, 9, 20, 21
P,X	EP 1 094 111 A (DEGUSSA ;KERNFORSCHUNGSANLAGE JUELICH (DE)) 25 April 2001 (2001-04-25) page 1, line 3 - line 5 examples 4-8 claims 1-15	5, 6, 9, 20, 21
P,X	EP 1 096 013 A (DEGUSSA) 2 May 2001 (2001-05-02) abstract page 1, line 3 - line 5 examples 1-7 claims 1-16	5, 6, 9, 20, 21
A	KRAMER R: "Genetic and physiological approaches for the production of amino acids", JOURNAL OF BIOTECHNOLOGY, ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM, NL, VOL. 45, NR. 1, PAGE(S) 1-21 XP004036833 ISSN: 0168-1656 page 3, column 1, paragraph 3 -page 16, column 2, paragraph 2 figures 2-4	10-16, 18, 19
A	EIKMANN B J ET AL: "MOLECULAR ASPECTS OF LYSINE, THREONINE, AND ISOLEUCINE BIOSYNTHESIS IN CORYNEBACTERIUM GLUTAMICUM", ANTONIE VAN LEEUWENHOEK, DORDRECHT, NL, VOL. 64, NR. 2, PAGE(S) 145-163 XP000918559 abstract page 146, column 2, paragraph 4 -page 153, column 2, paragraph 1	10-16, 18, 19

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 1a

Claim 1a defines a polynucleotide as comprising a nucleotide sequence that has at least 70% identity to a nucleotide sequence encoding a polypeptide of defined amino acid sequence. Back-translation to the polypeptide in DNA generates a very large number of nucleic acid sequences. For example, a polypeptide of 100 amino acid residues generates  $10^{47}$  nucleotide sequences. It is not possible to search an entire database with the entire list of generated nucleotide sequences. The search has been limited to nucleic acid/ nucleic acid, protein/protein and protein/six-frame translated nucleic acid comparisons.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 01/10772

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 1108790	A	20-06-2001	EP 1108790 A2	20-06-2001
EP 1106693	A	13-06-2001	DE 19959327 A1	13-06-2001
			AU 7198700 A	14-06-2001
			CN 1312373 A	12-09-2001
			EP 1106693 A1	13-06-2001
			JP 2001197892 A	24-07-2001
			PL 344387 A1	18-06-2001
EP 1094111	A	25-04-2001	DE 19950409 A1	26-04-2001
			AU 6410400 A	26-04-2001
			BR 0004957 A	29-05-2001
			CN 1308125 A	15-08-2001
			EP 1094111 A2	25-04-2001
			JP 2001149086 A	05-06-2001
			PL 343339 A1	23-04-2001
EP 1096013	A	02-05-2001	DE 19951975 A1	03-05-2001
			AU 6807500 A	03-05-2001
			BR 0005091 A	19-06-2001
			CN 1304997 A	25-07-2001
			EP 1096013 A2	02-05-2001
			JP 2001161386 A	19-06-2001